



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,353	03/02/2004	Kazuhiko Izumi	FY.51035US1A	2423
20995	7590	06/07/2005	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP			WINNER, TONY H	
2040 MAIN STREET			ART UNIT	
FOURTEENTH FLOOR			PAPER NUMBER	
IRVINE, CA 92614			3611	

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/791,353

Applicant(s)

IZUMI, KAZUHIKO

Examiner

Tony H. Winner

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29 and 30 is/are allowed.
- 6) ☒ Claim(s) 1,10-13,21-23,26-28,31 and 34 is/are rejected.
- 7) ☒ Claim(s) 2-8, 14-20, 24-25, and 32-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/16/05 & 3/21/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3611

Acknowledgment

1. Receipt of the amendment filed 2/16/05 has been acknowledged and entered. In light of the amendment, the office with withdrawing objection and rejection to claims 33 and 8.

IDS

2. The purpose of the IDS filed 2/16/05, which cited a U.S. patent 5,902,489 is unclear. The reference to Yasuda is not art related to the subject matter of the present application and therefore, has been crossed out because of non-relevancy.

Withdraw Previously Allowed Claims

3. It was brought to the examiner attention that the indicated allowability of claims 31 and 34 are withdrawn in view of Hueckler et al. (US. patent 4,895,217).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 31 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Hueckler et al. (US. patent 4,895,217).

Hueckler discloses an off-road vehicle comprising:

a. a frame, a pair of front wheels and a pair of rear wheels supporting the frame, a prime mover powering the wheels, the prime mover comprising an output shaft;

b. a front differential mechanism (20) connected to the front wheels, the front differential mechanism comprising a front input shaft, a front drive connecting the output shaft of the prime mover and the front input shaft of the front differential mechanism, the front differential mechanism being adapted for operation in an unlocked mode, a locked mode or a disabled mode;

c. a rear differential mechanism (22) connected to the rear wheels, the rear differential mechanism comprising a rear input shaft, a rear drive connecting the output shaft of the prime mover and the rear input shaft of the rear differential mechanism, the rear differential mechanism being adapted for operation in at least an unlocked mode or a locked mode.

d. one of the front differential mechanism and the rear differential mechanism being allowed to enter the locked mode only when the other one of the front differential mechanism and the rear differential mechanisms is in the locked mode (col 3 lines 33-38).

Note: The examiner takes position that the word “adapted for” is not a positive limitation but only requires the ability to so perform. Therefore, Hueckler meets all the functional language limitations in the broadest sense. Attachment A is forwarded to better present the office position.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9-13, 21-23, 26-28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi (US. patent 6,269,899 B1) and in view of Nakamura (US. Pub. 2002/0070066 A1).

Izumi discloses an off-road vehicle comprising:

a. a frame assembly, a pair of front wheels and a pair of rear wheels that are relative to the frame assembly, an operator's seat mounted to the suspended frame;

b. a prime mover selectively connectable to the pair of front wheels and the prime mover connected to the pair of rear wheels, the prime mover comprising an output shaft;

c. a front differential mechanism being operatively connected to the front wheels, the front differential mechanism comprising a front input shaft, the front differential mechanism being adapted for operation in an unlocked mode, a locked mode and a disabled mode, wherein the disabled mode results in the front wheels being disconnected from the prime mover;

d. a front drive line connecting the output shaft of the prime mover and the front input shaft of the front differential mechanism;

a rear differential mechanism being operatively connected to the rear wheels, the rear differential mechanism comprising a rear input shaft, the rear differential mechanism being adapted for operation in an 'unlocked mode and a locked mode;

e. a rear drive line connecting the output shaft of the prime mover and the rear input shaft of the rear differential mechanism;

Izumi lacks the teaching of a switching system adapted to allow an operator to select among only the following combinations of modes for the front and rear differentials: front disabled and rear unlocked; front disabled and rear locked; front unlocked and rear unlocked; front unlocked and rear locked; and front locked and rear locked.

Nakamura discloses a switching system to allow an operator to select different locking mode of the differential so as to provide the vehicle with greater traction control.

Based on the teaching of Nakamura, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the vehicle of Izumi to include the switching system with lockable differential of Nakamura so as to provide the vehicle with greater traction control.

Note: The examiner takes position that the word "adapted for" is not a positive limitation but only requires the ability to so perform. Therefore, Izumi as modified by Nakamura meet all the functional language limitations in the broadest sense.

With regard to claims 9-12, 21-23, and 26-28, Izumi as modified by Nakamura meets all of the claimed limitations.

Response to Arguments

6. Applicant arguments filed 2/16/05 have been fully considered but they are not persuasive.

Applicant argues that the use of functional limitation such as "adapted to/for" is not inherently wrong and such that "each of these limitations constitutes functional language which defines the claimed switching system and the claimed front and rear differential mechanism in term of how they function."

The office agrees that the functional limitations (e.g. adapted to/for) is not inherently wrong in its intention to recite a functional limitations of a structure or an apparatus. Such recitation (e.g. adapted to/for) is not a positive limitation but only requires the ability to perform certain function. The office construed that Izumi teaches a front and rear differential (col 3, lines 60-61) that would meet the basis requirement of claims 1, 13, and 31 but lacks the teaching of independent selectable mode for each of the front and rear differential mechanism. However, the front and rear differential mechanism of Izumi may be adapted to operate as recited in claims 1, 13, and 31. Attachment A is respectfully submitted so as to better support the office position.

Applicant further argues that reference to Nakamura is not a proper '103 rejection', since Nakamura does not teach a lockable rear differential mechanism.

In response, the examiner is not relying on the teaching of a lockable rear differential mechanism but rather the switching system that allows the operator to selectively engage/disengage the differential mechanism.

Allowable Subject Matter

7. Claims 2-8, 14-20, 24-25, and 32-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

8. The following is an examiner's statement of reasons for allowance:


Claims 29-30 are allowed because the prior art neither shows nor teaches that the first means for switching the front differential mechanism between at least an unlocked mode and a locked mode and a second means for switching the rear differential mechanism between an unlocked mode and a locked mode, and that the first means and the second means being separate components.

Conclusion

9. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Anthony H. Winner whose telephone number is (703) 306-5957. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris, can be reached at (703) 308-0629. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information-Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



TONY WINNER
PATENT EXAMINER

May 31, 2005